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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,868	11/13/2001	Kojiro Hamabe	Q67209	6035

7590 12/23/2005

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EXAMINER

JAIN, RAJ K

ART UNIT	PAPER NUMBER
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2664

DATE MAILED: 12/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/986,868	Applicant(s) HAMABE ET AL.	
	Examiner Raj Jain	Art Unit 2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 23-36 examined on the merits.

Response to Amendment

Examiner acknowledges and enters revised abstract as submitted on 25 October 2005, objection is hereby withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 29 recites the limitation "the time slot group" in line 10 of claim 29. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Objections

Claim 29 is objected to because of the following informalities: Last limitation recites here in part:

-said control instruction determining step determines **said control instruction based on** the reception quality values of the time slots contained in the time slot group on reception.

The examiner believes, this limitation may read better with the highlighted portion deleted, as it appears redundant to repeat "said control instruction based on" when same intent can be accomplished without said highlighted portion.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 23-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersson (US006567670B) further in view of Janky et al.

Regarding claims 23 and 29, Petersson discloses a method, apparatus and means for RF quality measurement within a network control means of a communication system (see abstract and Figs 1-3), the quality control means is comprised of;

-step for receiving a signal transmitted from a communication counterpart station (see abstract, Figs. 1-3, 7, col 2 lines 7-35, col 13 lines 31-45, the mobile station (MS) receives a signal transmitted from the base station (BTS));

- step for measuring a reception quality value of each received time slot (see Figs, 5a-d, col 5 lines 44-54, within a TDD/CDMA system reception quality of received

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signal is measured per slot using SIR, SNR or other signal interference measurement criteria's);

- control instruction determining step for periodically determining a control instruction depending upon said reception quality values of said plurality of slots (see col 5 lines 44-62, the control instruction is determined based on control parameter TPC which is measured against predetermined SIR value levels. In CDMA technology, the transmission power control is essential which controls the transmission power so that a received SIR (signal to interference ratio) measured on the receiving side matches a predetermined target SIR in response to results obtained by comparing the two values. In this technique, the SIR of a received signal is measured slot by slot and compared with the target SIR, the slot being defined as a section in a received signal sandwiched by two successive pilot signals of a known pattern which are transmitted periodically).;

- and transmission step for transmitting said control instruction to said counterpart station, whereby said control instruction being used for transmission power control of said counterpart station (see col 5 lines 44-62, col 13 lines 32-47, the transmission for power control is set within upped and lower threshold limits and incremental step values are sent as commands to the mobile station to either increase or decrease its power based on SIR measurements received on the uplink).

Petersson fails to disclose error correction coding for information bit within the transmitted signal and interleaving the time slots into one block.

Janky discloses error correction coding for information bit within the transmitted signal and interleaving the time slots into one block (see col 7 lines 32-52, col 11 lines

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29-45). Error correction is provided to enhance and protect the voice and data prior to and/or after transmission to designated site based on where the error processing is located. Interleaving incorporates all slots into one frame for transmission thereby saving time and improving efficiency of transmission by transmitting grouped frames as opposed to individual time slots.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made include error correction coding and interleaving within Petersson so as to improve the quality and integrity of the transmitted data as well as improving overall network efficiency by interleaving individual time slots prior to transmission.

Regarding claims 24 & 30, Petersson discloses within the prior art (see Figs 3-1, 4-1) each frame forms a time slot group consisting of number of timeslots based on the air interface technology used (i.e. TDMA, CDMA, TDD/CDMA, etc.). The group or frame value is used to adjust the power in the next time interval (see col 5 lines 19-30).

Regarding claims 25, and 31 Petersson discloses reception values ranges and appropriates steps for increase of power increments (see col 5 lines 44-67, col 13 lines 32-47, the values of "X" are user defined, i.e. the lower threshold value for "x" may be "0" and upper threshold value may be set for "100", thus any arbitrary values may be defined as appropriate. The error control part may be FER, BLER, etc as desired.)

Regarding claims 26, and 32 Petersson discloses detecting presence or absence of error and adjusting it accordingly based on set threshold values (see col 5 lines 7-62).

Regarding claims 27, 28, 33 & 34, Petersson discloses power control instructions determined by the RNC based on received SIR measurement values from the mobile station, (see col 5 lines 44-62, col 13 lines 32-47, the transmission for power control is set within upped and lower threshold limits and incremental step values are sent as commands to the mobile station to either increase or decrease its power based on SIR measurements received on the uplink).

Regarding claim 35, Petersson discloses a base transceiver station (see Fig. 1, ref. RBS, col 2 lines 7-15).

Regarding claim 36, Petersson discloses a mobile transceiver station (see Fig. 1, ref. MS, col 1 line 55 - col 2 line 15).

Response to Arguments

Applicant's arguments with respect to (**New**) claims 23-36 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

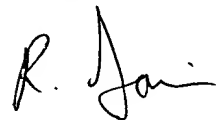
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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj Jain whose telephone number is 571-272-3145. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax number for the organization where this application is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.



RJ

December 14, 2005


Ajit Patel
Primary Examiner